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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,517	11/15/2001	Masayuki Sakata	Q67254	7275

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EXAMINER

DALENCOURT, YVES

ART UNIT	PAPER NUMBER
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2157

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/987,517

Applicant(s)

SAKATA, MASAYUKI

Examiner

Yves Dalencourt

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5,7-10,12 and 14-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,7-10,12 and 14-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This office action is responsive to amendment filed on 10/16/2006.

Response to Amendment

The Examiner has acknowledged the amended claims 1, 8, 14, 15, 17, 19, and 20.

Response to Arguments

Applicant's arguments with respect to claims 1 – 3, 5, 7 – 10, 12, and 14 - 20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 8-10, and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chuah et al (U.S. 6,400,722; hereinafter Chuah) in view of Noguchi et al (US 7,075,908; hereinafter Noguchi).

With respect to claim 1, Chuah discloses communication system which a mobile terminal can be connected to (col. 1, lines 8 – 16) and comprises a plurality of

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communication networks using different communication technologies (col. 1, lines 8 – 16) each of said plurality of communication networks use the Internet Protocol to connect to the Internet (The Internet requires IP protocol) said communication system comprising: an information service network for managing accounting information about said mobile terminal and providing services (40, Fig. 2); an AAAL (Authentication, Authorization and Accounting Local) device provided in each of said plurality of communication networks for sending charge information about the network in which said AAA L device is provided over the Internet [AAAL in Chuah is the accounting server in the serving IWF's MSC (see col. 30, lines 7 – 9).

Chuah does not disclose wherein said mobile terminal detects available communication networks and automatically identifies a lower-charge available communication network based on said charge information to determine whether a position registration request for said mobile terminal should be allowed or not.

However, Noguchi teaches an analogous wireless data communication network switching device and program which discloses a mobile terminal detects available communication networks and automatically identifies a lower-charge available communication network based on said charge information to determine whether a position registration request for said mobile terminal should be allowed or not (115, fig. 1; col. 1, lines 8 – 62; col. 6, lines 44 – 62; col. 7, lines 12 – 17; col. 9, lines 15 – 51; and col. 16, lines 3 – 10; col. 18, line 55 through col. 19, line 5; **Noguchi discloses a mobile computer 10 that detects whether a new wireless data communication network is made available and in response thereto, the issuance means 114 in the wireless**

data communication network switching device 11 determines whether the new wireless data communication network is more advantageous in service charge than the currently-used wireless data communication network and then issues a switching request to switch to the new wireless data communication network when it determines that the new wireless data communication network is more advantageous).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Chuah by incorporating the idea of a mobile terminal device, which detects available communication networks and automatically identifies a lower-charge available communication network based on said charge information to determine whether a position registration request for said mobile terminal should be allowed or not as evidenced by Noguchi for the purpose of implementing automatic switching of wireless data communication networks for least cost without change to any existing access router as well as to any existing client or server, thereby providing a cost efficient communication system and method.

Claim 8 cites all the corresponding limitations of claim 1, but in method form rather than in apparatus form. The reasons for the rejections of claim 1 apply to claim 8.

With respect to claim 2, Chuah and Noguchi teach all the limitations in claim 1, and Chuah further teaches that said plurality of communication networks include at least a mobile communication network, public telephone network, and private network [Fig. 1 shows public telephone network (6, PSTN) and private network (18, intranet). Note that Fig. 1 illustrates the: networks in which Chuah's invention operates, see lines 25-30,

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column 3. Fig. 2 shows the mobile communication network. See also from line 60, column 5 to line 6, column 6].

With respect to claim 3, Chuah and Noguchi teach all the limitations in claim 1, and Chuah further discloses said HA device [As noted above, HA in the current application is IWF1 and home registration server] performs the position registration of said mobile terminal in response to said position registration request sent from said FA device [See lines 4-11, column 8, for the function of home registration server and see lines 49-53, column 10 for the description of how a foreign registration server works with the home registration server].

With respect to claim 15, Chuah and Noguchi teach all the limitations in claim 1, and Chuah further discloses communication system which a mobile terminal can be connected to [lines 8-16, column 1] and comprises a plurality of communication networks using different communication technologies [lines 8-16, column 1] each of said plurality of communication networks use the Internet Protocol to connect to the Internet [The Internet requires IP protocol] said communication system comprising: an information service network for managing accounting information about said mobile terminal and providing services [40, Fig. 2]; a Mobile IP (Internet Protocol) HA (Home Agent) device [HA in the current application is the combination of IWF1 and home registration server in Chuah. See lines 12-21, column 11 and lines 56-65, column 45. For IWF1, see Fig. 37. Also see lines 18-22, column 13. See lines 18-21, column 42 for Mobile IP and HA.] provided in said information service network for constantly managing which said mobile terminal exists in and delivering received data to an appropriate

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network over the Internet [Fig. 37 and 38 show IWFI delivering messages and Fig. 2 shows the connection to the Internet] and, an FA (Foreign Agent) device provided in each of said plurality of communication networks for sending a position registration request from said mobile terminal to said HA device [FA in the current application is FA and the foreign registration server in Chuah. See lines 1221, column 11 and lines 56-65, column 45] and transferring data delivered from said HA device over the Internet to said mobile terminal when said mobile terminal is under the coverage of said FA device [See lines 44-49, column 9 for FA's role in delivering data from HA. See lines 12-26, column 10 for "coverage"]; wherein the position registration request and a reply corresponding to said position registration request communicated between said HA device and said FA device are used to flexibly enable communications between said plurality of communication networks and the continuation of the communications across said plurality of communication networks [This limitation indicates HA and FA are used in various networks. Chuah shows this in Figs. 1-2].

With respect to claim 16, Chuah and Noguchi teach all the limitations in claim 1, and Chuah further discloses an AAAL (Authentication, Authorization and Accounting Local) device provided in each of said plurality of communication networks for sending charge information about the network in which said AAAL device is provided over the Internet [AAAL in Chuah is the accounting server in the serving 1WF's MSC (see lines 7-9, column 30)] and an AAAH (Authentication, Authorization and Accounting Home) device provided in said information service network for managing accounting information about said mobile terminal according [AAAH in accounting server in the

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home IWF (see lines 9-10, column 30)] to said charge information sent from said AAAL device over the Internet,

Claims 17, 18, 9, and 10 cite all the corresponding limitations of claims 15, 16, 2, and 3, but in method form rather than in apparatus form. The reasons for the rejections of claims 15, 16, 2, and 3 apply to claims 17, 18, 9, and 10.

With respect to claim 19, a communication system including a plurality of communication networks using different communication technologies, said communication system comprising [lines 8-16, column 1]: a mobile terminal for sending a position registration request from said mobile terminal to a Home Agent (HA) device via a Foreign Agent (FA) [HA in the current application is the combination of IWF1 and home registration server in Chuah. See lines 12-21, column 11 and lines 56-65, column 45. For IWF1, see Fig. 37. Also see lines 18-22, column 13. See lines 1821, column 42 for Mobile IP and HA. Fig. 37 and 38 show IWF1 delivering messages and Fig. 2 shows the connection to the Internet.], an AAAL (Authentication, Authorization and Accounting Local) device provided in each of said plurality of communication networks for sending charge information about the network in which said AAAL device is provided over the Internet [AAAL in Chuah is the accounting server in the serving IWF's MSC (see lines 7-9, column 30)]; and

an AAAH (Authentication, Authorization and Accounting Home) device for managing accounting information about said mobile terminal according to said charge information sent from said AAAL device over the Internet [AAAH in accounting server in the home IWF (see lines 9-10, column 30)].

Chuah does not disclose wherein said mobile terminal detects available communication networks and determines whether said position registration request should be allowed or not based on charge information.

However, Noguchi teaches an analogous wireless data communication network switching device and program which discloses a mobile terminal detects available communication networks and determines whether said position registration request should be allowed or not based on charge information (115, fig. 1; col. 1, lines 8 – 62; col. 6, lines 44 – 62; col. 7, lines 12 – 17; col. 9, lines 15 – 51; and col. 16, lines 3 – 10; col. 18, line 55 through col. 19, line 5; **Noguchi discloses a mobile computer 10 that detects whether a new wireless data communication network is made available and in response thereto, the issuance means 114 in the wireless data communication network switching device 11 determines whether the new wireless data communication network is more advantageous in service charge than the currently-used wireless data communication network and then issues a switching request to switch to the new wireless data communication network when it determines that the new wireless data communication network is more advantageous).**

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Chuah by incorporating the idea of a mobile terminal device, which detects available communication networks and determines whether said position registration request should be allowed or not based on charge information as evidenced by Noguchi for the purpose of implementing automatic

switching of wireless data communication networks for least cost without change to any existing access router as well as to any existing client or server, thereby providing a cost efficient communication system and method.

Claim 20 substantively cites all the corresponding limitations of claim 19, but in method form rather than in apparatus form. The reasons for the rejections of claim 19 apply to claim 20.

Claims 5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chuah and Noguchi in view of Akhtar et al (Akhtar hereafter).

With respect to claim 5, Chuah and Noguchi do not disclose, but Akhtar discloses that said AAAL device determines whether said position registration should be allowed or not based on charge information added to the position registration request from said mobile terminal, said position registration request being input through said FA device. In Akhtar, see Fig. 56A, in which LSF performs AAA function in response to MIP FA's registration request. The registration depends on the user's payment of his bills. See lines 62-64, column 32 for the description.

The motivation for combining Chuah and Akhtar's inventions is suggested by Akhta. Akhtar's discussion on billing is within the context of systems that have FA and AAA, like the one disclosed by Chuah. See lines 57-64, column 32 for LSF ("AAAL"), see Fig. 11 for FA (LSF), AAAL (AAA in Visiting network), AAAH (AAA in Home Network), and HA (NSF).

Claim 12 lists all the corresponding limitations of claim 5, but in method form rather than in apparatus form. The reasons for the rejections of claim 5 apply to claims 12, and therefore, the claim 12 is rejected for the same reasons.

Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chuah and Noguchi in view of Amos.

With respect to claim 7, Chuah and Noguchi do not disclose and Amos teaches a simple cash dispenser that operates over the Internet and wireless network. See lines 31-35, column 1, and Fig. 2 in Amos.

The motivation for applying Chuah to Amos is suggested in Chuah's disclosure, lines 27-32, column 2, in which Chuah discusses how Chuah's invention provides hooks (or infrastructure) for various communication services, including ones that use the Internet. Amos's cash dispenser (H in Fig. 1) operates over the Internet. See Fig. 2.

Claim 14 lists all the corresponding limitations of claim 7, but in method form rather than in apparatus form. The reasons for the rejections of claim 7 apply to claims 14, and therefore, the claim 14 is rejected for the same reasons.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yves Dalencourt whose telephone number is (571) 272-3998. The examiner can normally be reached on M-TH 7:30AM - 6: 00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

January 3, 2007


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